

STATEMENT OF THE CLAIMS

1 - 20 (cancelled)

21. (new) An apparatus for occluding a blood vessel lumen comprising:

an integral occluding body realized from an elastomeric polymer, said integral occluding body consisting essentially of a blunt distal tip, a frusto-conical portion extending proximally from said distal tip, a disc-shaped portion extending proximally from said frusto-conical portion, and a proximal portion extending proximally from said disc-shaped portion, the diameter of the disc-shaped portion being larger than the diameter of the frusto-conical portion and being larger than the diameter of the blood vessel lumen in its natural state, the diameter of the proximal portion being smaller than the diameter of the disc-shaped portion;

wherein, when the occluding body is inserted by the insertion device axially into the blood vessel lumen, the wall of the lumen of the blood vessel expands and grasps the disc-shaped portion thereof such that the occluding body blocks blood flow through the blood vessel lumen; and

wherein at least said proximal portion defines a pilot hole for receiving an insertion device and said proximal portion defines means for receiving retraction means for removal of the occluding body from the blood vessel lumen.

22. (new) An apparatus according to claim 21, further comprising:

a recess in said disc-shaped portion, said recess disposed adjacent said proximal portion.

23. (new) An apparatus according to claim 21, wherein:

said disc-shaped portion and said frusto-conical portion further define said pilot hole.

24. (new) An apparatus according to claim 21, wherein:

said proximal portion comprises a cylindrical body

25. (new) An apparatus according to claim 21, wherein:

said retraction means comprises at least one filament.

26. (new) An apparatus according to claim 21, wherein:

the elastomeric polymer of the integral occluding body is selected from the group consisting of silicone, polyurethane and polyisobutylene-based polymers.

27. (new) An apparatus according to claim 21, wherein:

said disc-shaped portion has a diameter in the range between 1mm and 4mm.

28. (new) An apparatus according to claim 21, further including:

an insertion device for inserting the integral occluding body axially into the blood vessel lumen, the insertion device having a needle that is operably disposed within said pilot hole.

29. (new) An apparatus according to claim 28, wherein:

the insertion device includes at least one of

i) a tubular needle guard surrounding the needle, the tubular needle guard fitting into the pilot hole of the occluding body,

ii) a spring connected to the needle to propel the needle outwards and to thereby urge the occluding body into the blood vessel lumen, and

iii) a lever operable to propel the needle outwards to thereby urge the occluding body into the blood vessel lumen.